
TITLE 326 AIR POLLUTION CONTROL BOARD

Final Rule

LSA Document #10-127(F)

DIGEST

Amends [326 IAC 1-3-4](#) concerning the national ambient air quality standards for lead. Effective 30 days after filing with the Publisher.

HISTORY

Findings and Determination of the Commissioner Pursuant to [IC 13-14-9-8](#) and Draft Rule: March 17, 2010, Indiana Register (DIN: [20100317-IR-326100127FDA](#)).

Notice of Public Hearing: March 17, 2010, Indiana Register (DIN: [20100317-IR-326100127PHA](#)).

Change in Notice of Public Hearing: May 5, 2010, Indiana Register (DIN: [20100505-IR-326100127CHA](#)).

Date of First Hearing: June 2, 2010.

[326 IAC 1-3-4](#)

SECTION 1. [326 IAC 1-3-4](#) IS AMENDED TO READ AS FOLLOWS:

[326 IAC 1-3-4](#) Ambient air quality standards

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 4. (a) All measurements of air quality that are expressed as mass per unit volume, other than for the particulate matter (PM_{2.5}) standards contained in subsection (b)(8) **and lead (Pb) standards contained in subsection (b)(6)**, shall be corrected to a reference temperature of twenty-five (25) degrees Celsius and a reference pressure of seven hundred sixty (760) millimeters of mercury (one thousand thirteen and two-tenths (1,013.2) millibars), as micrograms per cubic meter (µg/m³). Measurements of PM_{2.5}, for purposes of comparison to the standards contained in subsection (b)(8), **and Pb, for purposes of comparison to the standards contained in subsection (b)(6)**, shall be reported based on actual ambient air volume measured at the actual ambient temperature and pressure at the monitoring site during the measurement period.

(b) Ambient air quality standards are as follows:

(1) Sulfur oxides as sulfur dioxide (SO₂) requirements are as follows:

(A) For primary standards, the following values shall represent the maximum permissible ambient air quality levels:

(i) Eighty (80) µg/m³ (three-hundredths (0.03) parts per million (ppm)) annual arithmetic mean not to be exceeded in a calendar year.

(ii) Three hundred sixty-five (365) µg/m³ (fourteen-hundredths (0.14) ppm) maximum twenty-four (24) hour average concentration not to be exceeded more than once per calendar year. The twenty-four (24) hour averages shall be determined from successive nonoverlapping three (3) hour blocks starting at midnight each calendar day.

(B) For secondary standards, the following value shall represent the maximum permissible ambient air quality levels: one thousand three hundred (1,300) µg/m³ (five-tenths (0.5) ppm) maximum three (3) hour concentration not to be exceeded more than once per year. The three (3) hour averages shall be determined from successive nonoverlapping three (3) hour blocks starting at midnight each calendar day.

(C) SO₂ values may be converted to ppm using the conversion factor two thousand six hundred twenty (2,620) µg/m³ = one (1) ppm.

(2) Total suspended particulates (TSP) requirements are as follows:

(A) For primary standards, the following values shall represent the maximum permissible ambient air quality levels:

(i) Seventy-five (75) µg/m³ annual geometric mean.

(ii) Two hundred sixty (260) µg/m³ maximum twenty-four (24) hour average concentration not to be exceeded more than one (1) day per year.

(B) For secondary standards, the following value shall represent maximum permissible ambient air quality levels: one hundred fifty (150) µg/m³ maximum twenty-four (24) hour average concentration not to be exceeded more than one (1) day per year.

(3) Carbon monoxide (CO) requirements are as follows:

(A) For primary and secondary standards, the following values shall represent the maximum permissible ambient air quality levels:

- (i) Ten (10) milligrams per cubic meter (mg/m^3) (ten thousand (10,000) $\mu\text{g}/\text{m}^3$) (nine (9) ppm) maximum eight (8) hour average concentration not to be exceeded more than once per year.
- (ii) Forty (40) mg/m^3 (forty thousand (40,000) $\mu\text{g}/\text{m}^3$) (thirty-five (35) ppm) maximum one (1) hour average concentration not to be exceeded more than once per year.

(B) CO values may be converted to ppm using the conversion factor one thousand one hundred forty-five ($1,145$) $\mu\text{g}/\text{m}^3 = \text{one (1) ppm}$.

(4) Ozone (O_3) requirements are as follows:

(A) For the one (1) hour ozone standards, the level of the one (1) hour primary and secondary ambient air quality standards for ozone measured by a reference method based on 40 CFR 50, Appendix D* and designated in accordance with 40 CFR 53* is twelve-hundredths (0.12) ppm (two hundred thirty-five (235) $\mu\text{g}/\text{m}^3$). The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above twelve-hundredths (0.12) ppm (two hundred thirty-five (235) $\mu\text{g}/\text{m}^3$) is equal to or less than one (1) as determined by 40 CFR 50, Appendix H*.

(B) For the eight (8) hour ozone standards, the:

- (i) level of the eight (8) hour primary and secondary ambient air quality standards for ozone, measured by a reference method based on 40 CFR 50, Appendix D* and designated in accordance with 40 CFR 53*, is eight-hundredths (0.08) ppm, daily maximum eight (8) hour average; and
- (ii) eight (8) hour primary and secondary ozone ambient air quality standards are met at an ambient air quality monitoring site when the average of the annual fourth highest daily maximum eight (8) hour average ozone concentration is less than or equal to eight-hundredths (0.08) ppm as determined in accordance with 40 CFR 50, Appendix I*.

(C) O_3 values may be converted to ppm using the conversion factor one thousand nine hundred sixty-five ($1,965$) $\mu\text{g}/\text{m}^3 = 1.0 \text{ ppm}$.

(5) Nitrogen dioxide (NO_2) requirements are as follows:

(A) For primary and secondary standards, the following value shall represent the maximum permissible ambient air quality level: one hundred (100) $\mu\text{g}/\text{m}^3$ (fifty-three thousandths (0.053) ppm) annual arithmetic mean concentration in a calendar year.

(B) NO_2 values may be converted to ppm using the conversion factor one thousand eight hundred eighty ($1,880$) $\mu\text{g}/\text{m}^3 = \text{one (1) ppm}$.

(6) ~~Lead Pb:~~ For primary and secondary standards, the following value shall represent the maximum permissible ambient air quality level: ~~one and five-tenths (1.5) micrograms lead per cubic meter of air (μg of Pb/m^3), averaged over a calendar quarter and measured as elemental lead: fifteen-hundredths (0.15) $\mu\text{g}/\text{m}^3$, arithmetic mean concentration over a three (3) month period. The standards are attained when the maximum arithmetic three (3) month mean concentration for a three (3) year period is less than or equal to fifteenth-hundredths (0.15) $\mu\text{g}/\text{m}^3$, as determined in accordance with 40 CFR 50, Appendix R* and measured in the ambient air as Pb by either:~~

(A) a reference method based on 40 CFR 50, Appendix G*, and designated in accordance with 40 CFR 53*; or

(B) an equivalent method designated in accordance with 40 CFR 53*.

(7) PM_{10} : For primary and secondary standards, the following values shall represent the maximum permissible ambient air quality levels:

(A) Fifty (50) $\mu\text{g}/\text{m}^3$ annual arithmetic mean. The standards are attained when the expected annual arithmetic mean concentration, as determined in accordance with 40 CFR 50, Appendix K*, is less than or equal to fifty (50) $\mu\text{g}/\text{m}^3$.

(B) One hundred fifty (150) $\mu\text{g}/\text{m}^3$ maximum twenty-four (24) hour average concentration. The standards are attained when the expected number of days per calendar year with a twenty-four (24) hour average concentration above one hundred fifty (150) $\mu\text{g}/\text{m}^3$, as determined in accordance with 40 CFR 50, Appendix K*, is equal to or less than one (1).

(8) $\text{PM}_{2.5}$: For primary and secondary standards, the following values shall represent the maximum permissible ambient air quality levels:

(A) Fifteen (15) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual arithmetic mean concentration. The standards are attained when the annual arithmetic mean concentration is less than or equal to fifteen (15) $\mu\text{g}/\text{m}^3$, as determined in accordance with 40 CFR 50, Appendix N* and measured in the ambient air as $\text{PM}_{2.5}$ by either:

- (i) a reference method based on 40 CFR 50, Appendix L*, and designated in accordance with 40 CFR 53*; or
- (ii) an equivalent method designated in accordance with 40 CFR 53*.

(B) Sixty-five (65) $\mu\text{g}/\text{m}^3$ twenty-four (24) hour average concentration. The standards are attained when the

ninety-eighth percentile twenty-four (24) hour concentration is less than or equal to sixty-five (65) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), as determined in accordance with 40 CFR 50, Appendix N and measured in the ambient air as $\text{PM}_{2.5}$ by either:

- (i) a reference method based on 40 CFR 50, Appendix L*, and designated in accordance of 40 CFR 53*; or
- (ii) an equivalent method designated in accordance with 40 CFR 53*.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(Air Pollution Control Board; [326 IAC 1-3-4](#); filed Mar 10, 1988, 1:20 p.m.: 11 IR 2378; filed Apr 13, 1988, 3:35 p.m.: 11 IR 3020; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed May 21, 2002, 10:20 a.m.: 25 IR 3055; filed Mar 9, 2004, 3:45 p.m.: 27 IR 2224; filed Dec 20, 2004, 2:15 p.m.: 28 IR 1471; filed Mar 6, 2006, 3:00 p.m.: 29 IR 2179; filed Sep 24, 2010, 1:44 p.m.: [20101020-IR-326100127FRA](#))

LSA Document #10-127(F)

Findings and Determination of the Commissioner Pursuant to [IC 13-14-9-8](#): [20100317-IR-326100127FDA](#)
Hearing Held: June 2, 2010

Approved by Attorney General: September 10, 2010

Approved by Governor: September 23, 2010

Filed with Publisher: September 24, 2010, 1:44 p.m.

Documents Incorporated by Reference: 73 FR 67051, dated November 12, 2008

Small Business Regulatory Coordinator: Alison Beumer, IDEM Compliance and Technical Assistance Program - OPPTA, MC 60-04 IGCS W041, 100 North Senate Avenue, Indianapolis, IN 46204-2251, (317) 232-8172 or (800) 988-7901, ctap@idem.in.gov

Small Business Assistance Program Ombudsman: Brad Baughn, IDEM Small Business Assistance Ombudsman, MC 50-01 IGCN 1307, 100 North Senate Avenue, Indianapolis, IN 46204-2251, (317) 234-3386, bbaughn@idem.in.gov

Posted: 10/20/2010 by Legislative Services Agency

An [html](#) version of this document.